



Lake Erie Harmful Algal Bloom Bulletin

27 August, 2018, Bulletin 20

Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin of Lake Erie. Recent satellite imagery (8/24) is partially obscured by clouds, limiting analysis. Imagery indicates the bloom is present in Maumee Bay, extending north along the Michigan coast to Brest Bay, 14 miles east along the Ohio coast past Sandusky Bay, throughout the Bass Islands, and 25 miles east of Pelee Island. Winds observed over the weekend (8/24-27) promoted slight mixing of surface *Microcystis* concentrations. Toxin concentrations are detectable at all sampling sites with most below the recreational threshold, but exceeding recreational thresholds where the bloom is most dense, 3 miles north of Magee Marsh Wildlife Refuge. *Keep pets and yourself out of the water in areas where scum is forming.* The persistent cyanobacteria bloom in Sandusky Bay continues.

Forecasts

Winds (8-20 kn) forecast today through Thursday (8/27-30) will promote strong mixing of *Microcystis* concentrations and support northeast transport of surface *Microcystis* concentrations into the central basin. --Keeney, Ludema

Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: <http://publicapps.odh.ohio.gov/beachguardpublic/>

Ohio EPA's site on harmful algal blooms: <http://epa.ohio.gov/HAB-Algae>

NOAA's GLERL provides additional HAB data here: http://www.glerl.noaa.gov/res/HABs_and_Hypoxia

The images below are "GeoPDF". Please visit <https://go.usa.gov/xReTC> for instructions on viewing longitude and latitude.

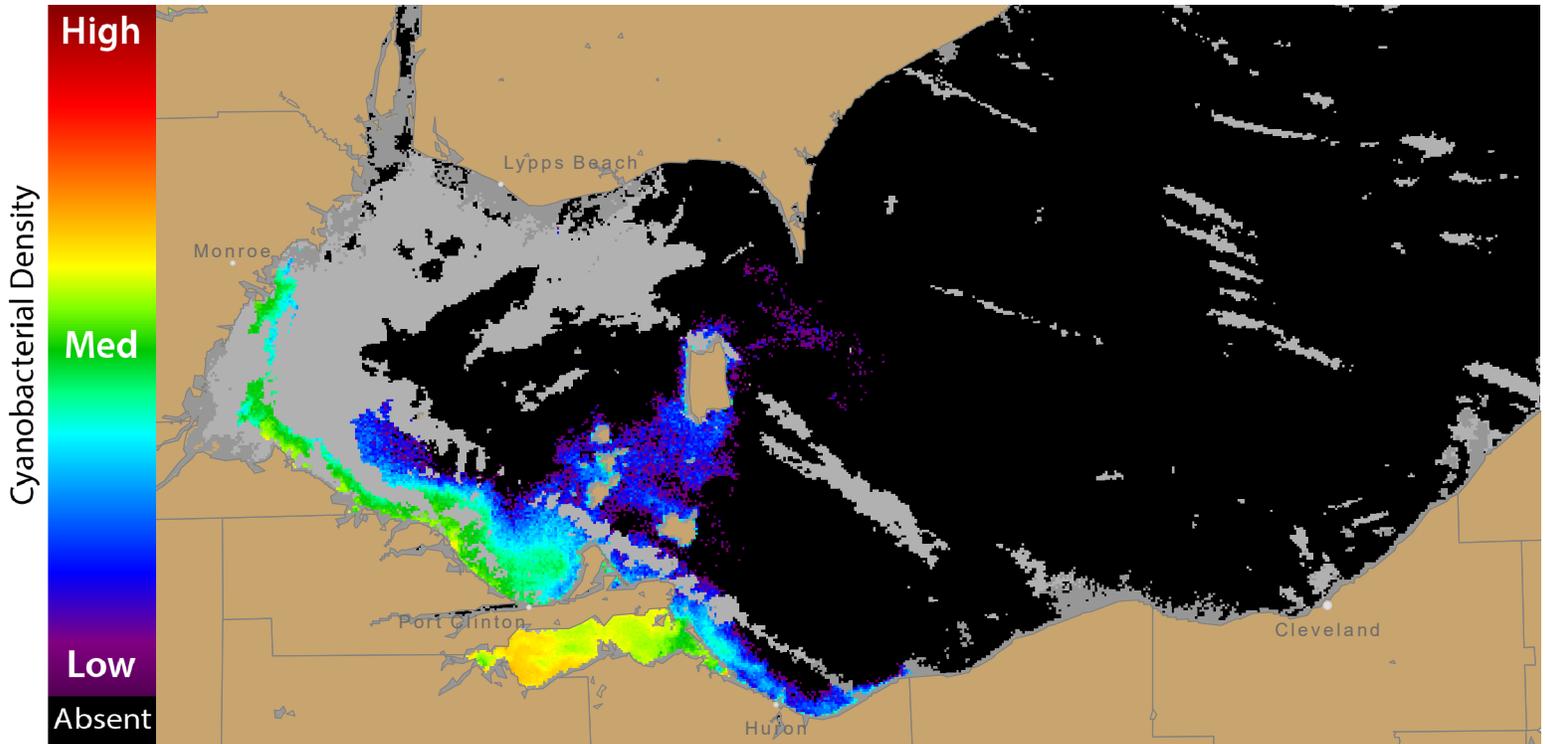


Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 24 August, 2018 at 11:46 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/L

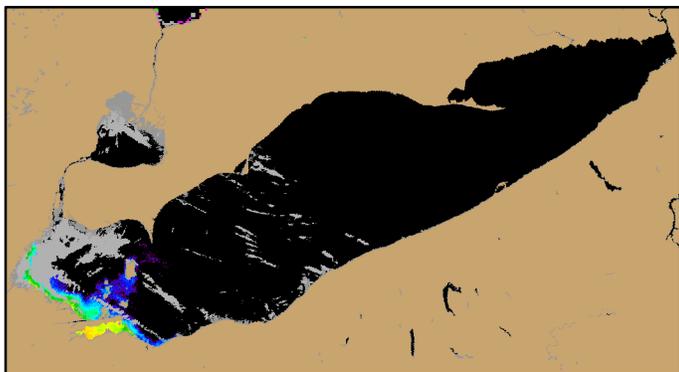
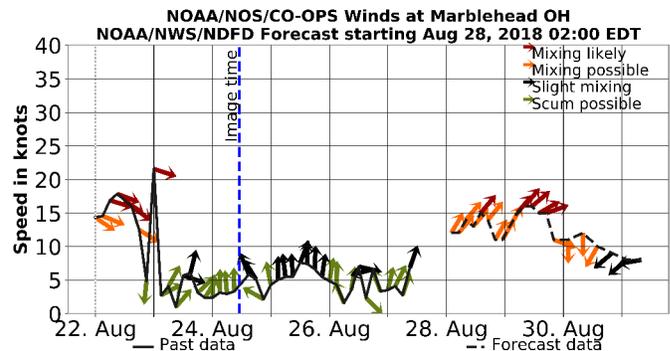


Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 24 August, 2018 at 11:46.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

For more information and to subscribe to this bulletin, go to: <https://tidesandcurrents.noaa.gov/hab/lakeerie.html>

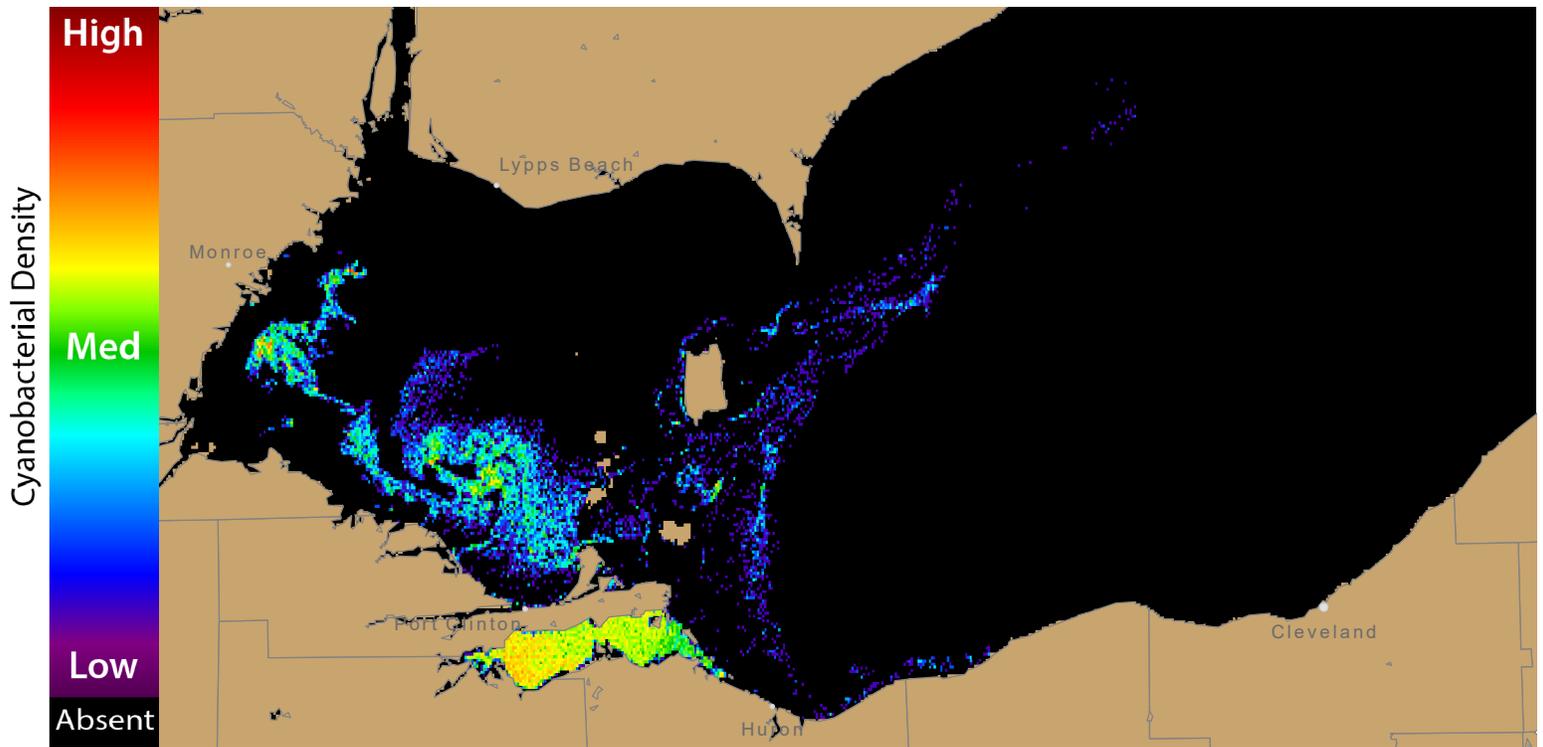


Figure 3. Nowcast position of bloom for 27 August, 2018 using LEOFS modelled currents to move the bloom from the 24 August, 2018

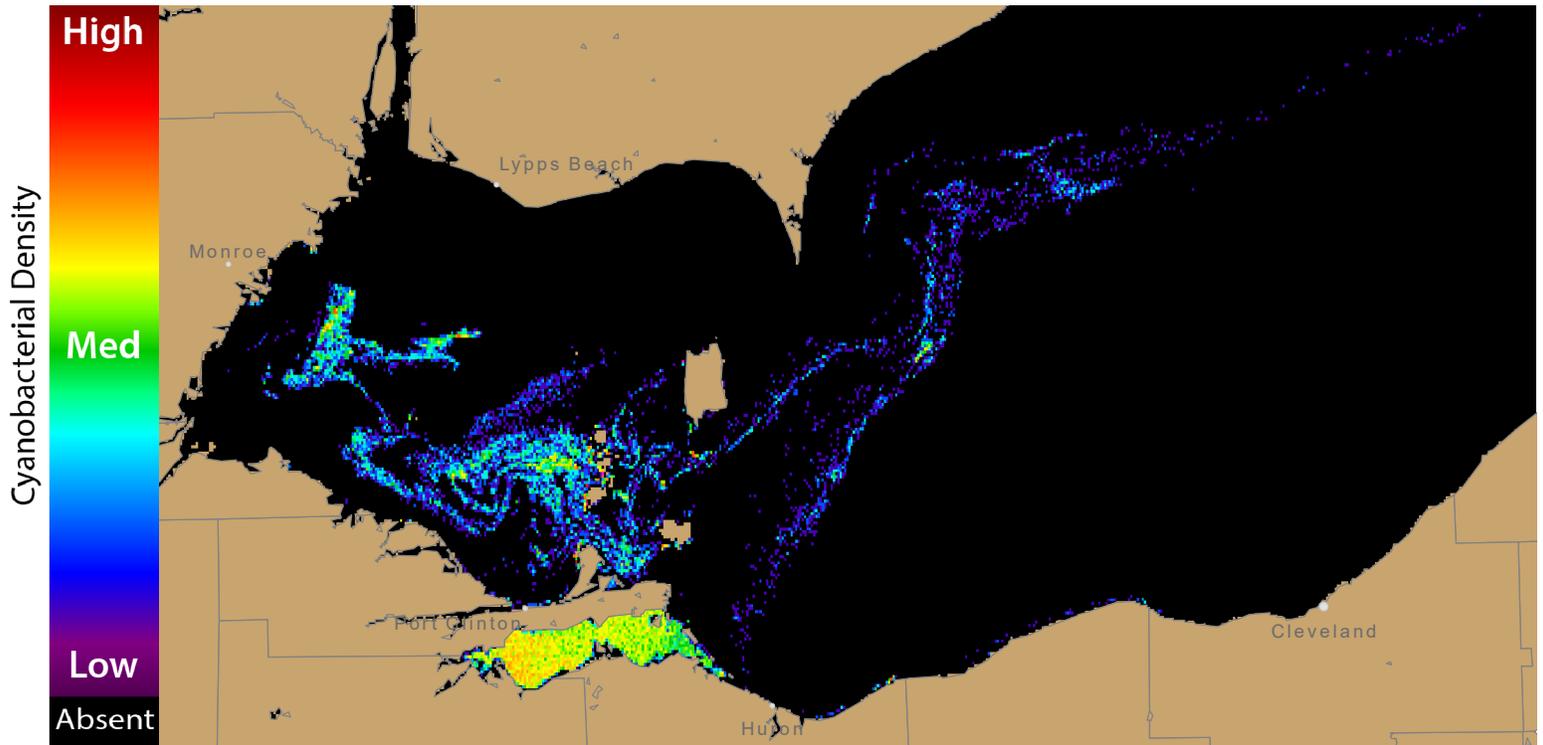
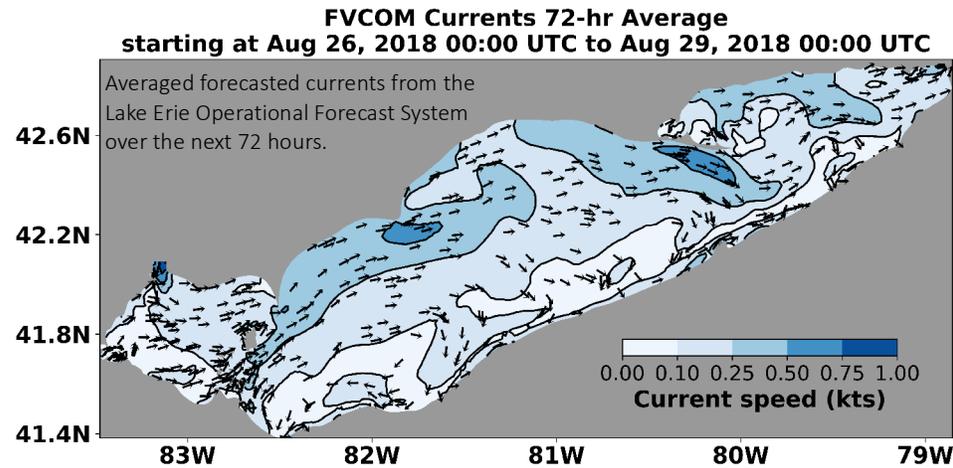


Figure 4. Forecast position of bloom for 30 August, 2018 using LEOFS modelled currents to move the bloom from the 24 August, 2018



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